

## ABSTRACT:

A multiphase LC oscillator is proposed which belongs to the so-called class, which delivers correct-by-construction  $I/Q$  signals.

Unlike state of the art  $I/Q$  LC oscillators, the proposed invention oscillates at the point where the quality factor of the resonator is maximum.

5 Hence the new multiphase LC oscillator provides also maximum carrier to noise ratio correct by construction given a certain resonator. This is realized by implementing the  $V/I$  converters which couple the  $N$  LC oscillators, with an exact  $180/N$ -degree phase shift.

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